superior, a multi-modal approach appears most effective. Paradoxical worsening in MDRO transmission rates was noted, possibly due to the multiple factors contributing to MDRO transmission or lag before effects of improved HHC become apparent.

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1st report on the molecular epidemiology of Malaysian coagulase-negative staphylococci (CoNS): experience in a university hospital's neonatal intensive care unit (NICU)

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Background: Coagulase-negative staphylococci (CoNS) are a major cause of sepsis in neonatal intensive care units (NICU) worldwide. We determined the molecular epidemiology of coagulase-negative staphylococci (CoNS) isolated from the NICU of our university hospital, UKM Medical Centre (UKMMC).

Methods: Eighty-seven CoNS isolated from various specimens such as blood, pus, nasal pharyngeal aspirate were collected from NICU, UKMMC in 2009. Species identification, SCC*mec* typing, toxin gene (*cna*, TSST-1, *pvl* and *seh*) prevalence and *ica* operon characterization were carried out for all isolates via multiplex PCR. Pulsed-field gel electrophoresis (PFGE) typing was also carried out for all isolates.

Results: In our study, most (77%) CoNS were identified as *Staphylococcus epidermidis*; no *S. saprophyticus* was isolated. 32% of the strains were none *SCCmec* typeable, whereas only 10.3% and 5.7% of the strains could be identified as SCC*mec* type IV and V, respectively. Interestingly, we detected 11 possible new SCC*mec* patterns which were abundant in *ccrC* (21.8%) and *ccrA2* (17.2%). More than half of the strains did not carry any *cna*, TSST-1, *pvl* or *seh*, whilst 31% had *cna* alone or in combination with TSST-1, *pvl* or *seh*. 13.8% of the CoNS harbored a complete *ica* operon, 21.8% had only *icaA* and *icaD*. Intriguingly, we noted a high abundance (92%) of the insertion sequence IS256 in this operon of our strains. At 80% similarity, PFGE typing for the strains revealed 3 major clusters; however, we could not detect any significant relationship between PFGE, SCC*mec*, toxin gene or *ica* genotypes for the study strains.

Conclusion: This is the first report on the molecular epidemiology of CoNS isolated in Malaysia. As the medical importance of CoNS is expected to rise with the increasing prevalence of invasive medical procedures, studies into the molecular characteristics of CoNS will give us a better understanding of this opportunistic pathogen.

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Statin use in sepsis (STATUS): a meta-analysis

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Background: Sepsis is still one of the leading causes of death worldwide despite advances in diagnosis and therapy. Recently, statins have been shown to demonstrate a protective effect in patients with sepsis and/or other infections based on several cohort studies by virtue of the pathophysiological similarities between sepsis and atherosclerosis. However, this finding has not been corroborated until recently by several randomized controlled trials (RCTs). Considering the possible beneficial effects and lower cost of statins, the demonstration of a mortality benefit would have significant cost-benefit implications, which is what this meta-analysis seeks to investigate.

Methods: An electronic search of PubMed, Cochrane, Clinicaltrials.gov, International Standard RCT Numbers, and Google Scholar using the terms *sepsis* and *statins* was conducted and supplemented with a hand search. The studies were assessed for inclusion based on pre-specified criteria and independently evaluated by two authors. Data was analyzed in RevMan from pooled risk ratios (RRs) using a random effects model. Heterogeneity was assessed using Cochran's *Q* statistic and *I2*.

Results: A total of 3 RCTs were included with a total of 333 participants. The effect of statins in preventing the progression of sepsis to severe sepsis was inconclusive but showed a trend towards benefit (pooled RR 0.58, CI [0.18, 1.8], $P = 0.07$). In terms of reducing mortality, the results were also inconclusive but showed a trend towards harm with statin therapy (pooled RR 1.22, CI [0.55, 2.72], $P = 0.66$). As for the effect of statins on reducing the need for intensive care unit admission, there was no significant difference between statin use and placebo (pooled RR 1.01, CI [0.53, 1.93], $P = 0.37$).

Conclusion: Statin use in sepsis has no significant benefit compared to placebo in reducing infection and infection-related outcomes in contrast with findings from previous studies which were only observational in nature.

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Factors that define antifungal therapy in intensive care units patients in Colombian third level hospitals

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Background: Although the increased frequency of invasive fungal infections, there are limited data on factors that influence the use of antifungals. The aim of this study was determinate the fac-